

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P241870

Luminaire Tested: **PRS420D010-S4M12-41SNDMW-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-52)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SNDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1829.7 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.93
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

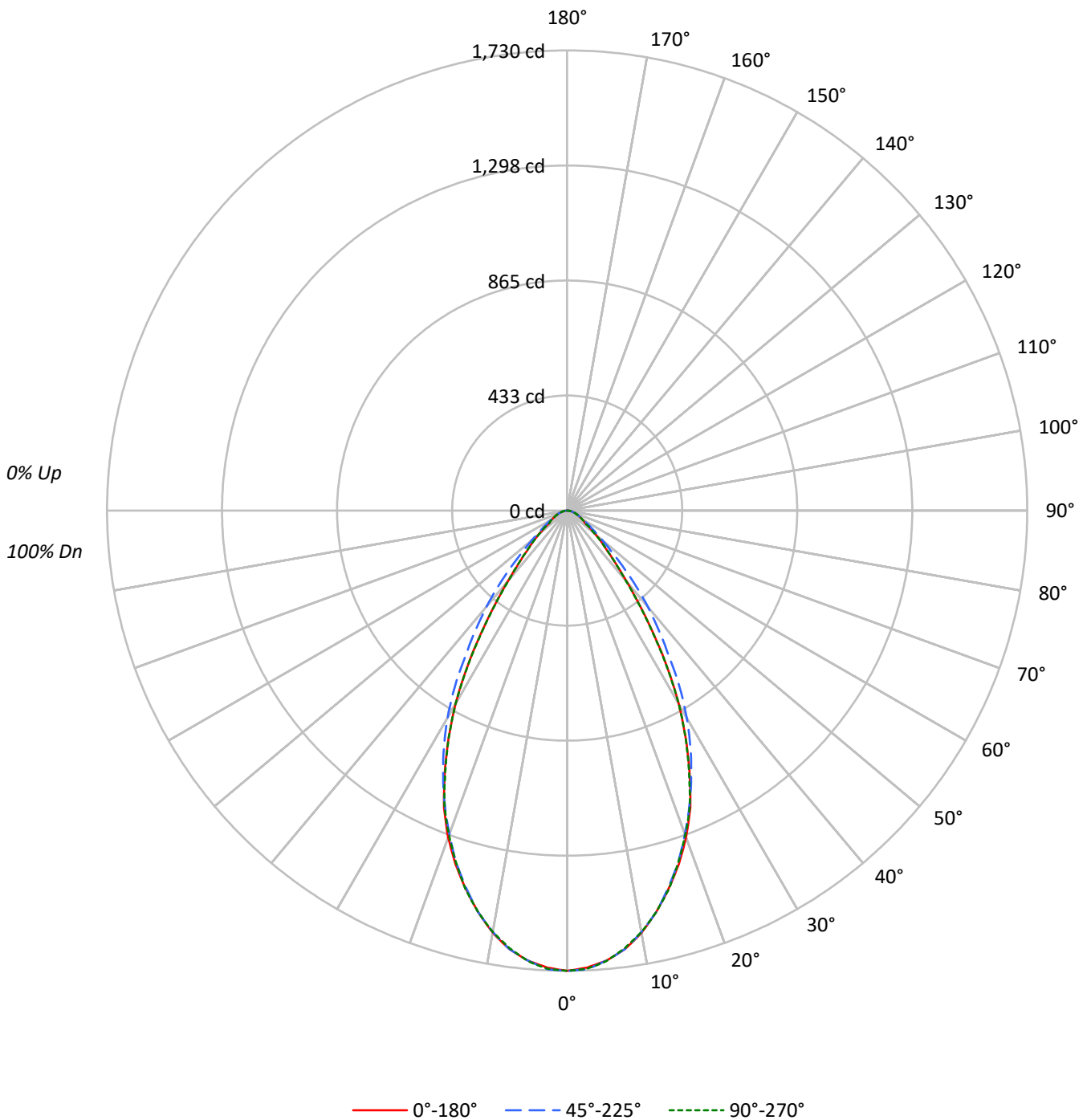
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83					83			
3	99	92	86	82	97	91	85	81	88	83	80	85	82	78	83	80	77	75					75			
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63					63			
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	79	68	61	57	77	67	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47					47			
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45	44					44			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	132458	132458	132458
5°	130459	130459	130629
10°	125229	125058	125058
15°	116678	116337	116853
20°	106512	105453	105803
25°	91939	93223	91568
30°	74172	79537	74172
35°	52888	62204	52477
40°	34453	47022	34023
45°	23003	31684	23241
50°	16528	20136	16266
55°	10996	14186	10996
60°	9966	10624	9966
65°	9038	9038	9038
70°	8258	8258	8258
75°	7068	7068	7068
80°	6700	6700	6700
85°	5709	5709	5709



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	8.7
10°-20°	410.9	22.5
20°-30°	499.5	27.3
30°-40°	386.6	21.1
40°-50°	199.1	10.9
50°-60°	90.2	4.9
60°-70°	50.0	2.7
70°-80°	26.3	1.4
80°-90°	7.6	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1069.8	58.5
0°-40°	1456.5	79.6
0°-60°	1745.7	95.4
0°-90°	1829.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1829.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1730	1730	1730	1730	1730	
5°	1698	1702	1698	1700	1700	159
15°	1472	1472	1468	1470	1475	412
25°	1089	1102	1104	1099	1084	495
35°	566	622	666	620	562	356
45°	212	245	293	245	215	171
55°	82	95	106	95	82	82
65°	50	50	50	50	50	49
75°	24	24	24	24	24	26
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1730.5	1730.5	1730.5	1730.5	1730.5
2.5°	1719.6	1721.8	1726.1	1724.0	1724.0
5°	1697.9	1702.3	1697.9	1700.1	1700.1
7.5°	1663.2	1663.2	1663.2	1658.9	1658.9
10°	1611.2	1609.0	1609.0	1609.0	1609.0
12.5°	1546.1	1548.3	1546.1	1548.3	1546.1
15°	1472.4	1472.4	1468.1	1470.2	1474.6
17.5°	1394.3	1392.2	1387.8	1385.7	1387.8
20°	1307.6	1301.1	1294.6	1298.9	1298.9
22.5°	1210.0	1207.8	1201.3	1203.5	1205.7
25°	1088.6	1101.6	1103.8	1099.4	1084.2
27.5°	965.0	980.2	1004.0	980.2	965.0
30°	839.2	863.1	899.9	863.1	839.2
32.5°	702.6	746.0	787.2	748.1	700.4
35°	566.0	622.4	665.7	620.2	561.6
37.5°	444.5	498.8	563.8	500.9	442.4
40°	344.8	394.7	470.6	394.7	340.5
42.5°	268.9	312.3	379.5	310.1	268.9
45°	212.5	245.0	292.7	245.0	214.7
47.5°	173.5	197.3	221.2	197.3	173.5
50°	138.8	156.1	169.1	156.1	136.6
52.5°	108.4	123.6	132.3	123.6	108.4
55°	82.4	95.4	106.3	95.4	82.4
57.5°	73.7	75.9	86.7	75.9	73.7
60°	65.1	65.1	69.4	65.1	65.1
62.5°	56.4	58.5	58.5	58.5	56.4
65°	49.9	49.9	49.9	49.9	49.9
67.5°	41.2	43.4	43.4	43.4	41.2
70°	36.9	36.9	36.9	36.9	36.9
72.5°	30.4	30.4	30.4	30.4	30.4
75°	23.9	23.9	23.9	23.9	23.9
77.5°	19.5	19.5	19.5	19.5	19.5
80°	15.2	15.2	15.2	15.2	15.2
82.5°	10.8	10.8	10.8	10.8	10.8
85°	6.5	6.5	6.5	6.5	6.5
87.5°	2.2	2.2	2.2	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)